DOCUMENT RESUME

ED 248 832 IR 011 281

TITLE	School Utilization Study, 1982-83. Executive Summary.
INSTITUTION	Corporation for Public Broadcasting, Washington, D.C.; National Center for Education Statistics (ED), Washington, DC.
PUB DATE	23 May 84
NOTE	14p.; For related document, see ED 180 015.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Administrators; Audio Equipment; *Audiovisual Aids; *Computers; *Educational Radio; *Educational Television; Elementary Secondary Education; National Surveys; School Surveys; Teachers; Television Viewing; *Use Studies; Video Equipment
IDENTIFIERS	Computer Users; Computer Uses in Education

ABSTRACT

A survey of the availability, use, and support--financial, personnel, and staff development--of instructional media in United States public and private elementary and secondary schools was conducted by the Corporation for Public Broadcasting and the National Center for Education Statistics. This study expanded on a 1976-77 study of school utilization of television by adding audio/radio and computers. A sample of 619 school superintendents, 1,350 principals and 2,700 teachers were queried about any in-school instructional applications of programming and equipment during the 1982-83 school year. When classifying responses, district size and wealth and school level were used to illuminate similarities and differences that existed in media use. Results of the survey showed that all three media were available to at least some teachers in most school systems; media use varied across media and school levels; financial support differed greatly according to district size and wealth; over 90% of districts offered inservice teacher training in some media; and some have media support personnel. Comparisons with results of the earlier study show that the status of television for instruction has remained relatively stable from 1976-1977 to 1982-1983, with fewer elementary and more secondary teachers using television. (LMM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED248832

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

SCHOOL UTILIZATION STUDY 1982-83

EXECUTIVE SUMMARY

May 23, 1984

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Douglas F. Bodwell

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IR011251

School Utilization Study 1982-83
EXECUTIVE SUMMARY

TABLE OF CONTENTS

DEFINITIONS iii

ENDORSING ORGANIZATIONS iii

INTRODUCTION 1

I. Availability of Media 1

A. Television 2

B. Audio/Radio 3

C. Computers 3

II. Use of Media by Teachers and Students 4

A. Characteristics of Use Patterns - Television 5

B. Characteristics of Use Patterns - Audio/Radio 6

C. Characteristics of Use Patterns - Computers 6

III. Support for Instructional Media 7

A. Financial 7

B. Personnel 8

C. Staff Development 8

IV. Some Comparisons with SUS-1977 9

A. Availability 9

B. Use 9

DEFINITIONS

Throughout the full study several terms were used repeatedly. For consistency in interpretation, here are their definitions:

Instructional Television (ITV): any in-school uses of television programming and equipment for instructional purposes.

Audio/Radio: any in-school uses of instructional programming and equipment using sound as the major medium (e.g., radio programs, records, sound film strips, audiotapes/cassettes).

Computer: any in-school uses of computer software and equipment (microcomputers or terminals connected to a central processor) used interactively by students for instructional purposes. Excluded is the use of computers for administrative purposes.

Other Media: any in-school uses of other devices used for instructional purposes not included in the categories above (e.g., film, silent film strips, overheads).

ENDORSING ORGANIZATIONS

We are indebted to our colleagues at the ten national education and broadcasting organizations that endorsed the study: American Association of School Administrators, American Federation of Teachers, Association for Educational Communications and Technology, Council of Chief State School Officers, National Association of Elementary School Principals, National Association of Secondary School Principals, National Catholic Education Association, National Education Association, National Public Radio, and Public Broadcasting Service.

School Utilization Study 1982-83
EXECUTIVE SUMMARY

The 1982-83 School Utilization Study (SUS-83) is the second study on the availability, use and support for instructional media conducted by the Corporation for Public Broadcasting (CPB) and National Center for Education Statistics (NCES) of the U.S. Department of Education. It is a follow-up to the CPB and NCES 1976-77 School Utilization Study in its focus on television, but it expands on the earlier study by including two other media: audio/radio and computers. This document summarizes the complete study, Availability, Use, and Support of Instructional Media, 1982-83 by John A. Riccobono, which will be published in summer of 1984 by the Corporation for Public Broadcasting.

A complex sampling of the nation's public and private elementary and secondary schools resulted in the collection of information representative of the approximately 11,500 public school districts and Catholic dioceses, 81,000 school buildings, and 2,137,000 classroom teachers in the United States.

From February through May 1983, questionnaires were mailed to 619 school superintendents, 1350 principals, and 2700 teachers. Several follow-up methods were used. The response rates were 86 percent of the superintendents, 84 percent of the principals and 80 percent of the teachers. Appropriate weightings, related to the sampling strategy and response rates, allowed the estimation of results for the total national population of each of the three groups. Because these estimates are based on a sample, they may vary somewhat from the figures that would have been obtained if a complete census survey had been undertaken. The full publication explains how to extrapolate the standard error for each item.

Focusing on three prominent communications media — television, audio/radio, and computers — SUS-83 asked respondents about any in-school instructional applications of programming and equipment during the 1982-83 school year. To reduce respondent burden, questions were tailored to the media and not all questions were asked of all respondents. When classifying responses, district size, district wealth, and school level were used to illuminate some similarities and differences that exist in the use of media.

This summary of SUS-83 results is broken down by availability, use, and support of the three media. Selection of findings to include in this summary was influenced by three factors: (a) long-term importance to professionals in public broadcasting and education; (b) changing information needs as computer-based technology offers new possibilities for high quality instruction; and (c) assessing relationships among media as schools move toward integrating several media for instruction.

AVAILABILITY OF MEDIA

All three media were available to at least some teachers in a large majority of the nation's school systems. Availability in a district or building does not, as yet, automatically guarantee access by every individual teacher and the students he or she teaches. "Availability" means, for example, that television programming is available at a school building by some means, whether broadcast, cable, or recorded. "Access" by individual teachers, however, may be limited by such factors as lack of working television sets or recorders, a poor broadcast signal, etc.

The figures below indicate the availability of the media at the district, building, and classroom levels:

Medium	District	Building	Classroom
Television	91%	94%	70%
Audio/Radio	86	89	88
Computers	94	78	44

Based on these percentages, an estimated number of teachers having the medium available is as follows:

Television	1,464,000
Audio/Radio	1,892,000
Computers	938,000

Availability—Television

According to superintendent reports:

* 96 percent of the buildings with television available had at least one set available for instructional use and the average is six sets each.

* 74 percent of the buildings had at least one video recorder.

Principals reported on other resources available to teachers, and videocassette/tape libraries were the most frequently reported. Libraries are based as follows:

In school building	42%
In district	34
In regional or other intermediate unit	25

Based on individual teacher reports, 97 percent of teachers to whom television is available had access to sets, and 75 percent had access to color sets. Eighty-one percent of the teachers reported some means of off-air recording.

* More secondary than elementary schools had television sets and recorders, but the ratio of teachers to equipment was lower at the elementary level.

* Twenty-nine percent of the elementary teachers reported access to black and white sets only, compared to 17 and 19 percent at the senior and junior high levels respectively.

* Three percent of the teachers who report programming available did not have any television sets.

Equipment sharing was often necessary to provide access. Rotation among classrooms is the method reported by 47 percent of all principals with television available.

* At the elementary level, however, 34 percent of sets are permanently located in a specific classroom.

* About one fourth of the senior high principals reported use in media centers or libraries as an alternative to rotation among classrooms.

Many school buildings have programming available from multiple sources. The four most common sources reported by principals were:

Direct off-air broadcast from a public television station	67%
Cassette or videotape	65
Direct off-air broadcast from a commercial television station	60
Cable television	39

Many public television stations provide instructional programming through other means including videocassettes, cable and ITFS. In addition, teachers use off-air recording for later playback to the class. Fifty-five percent of those having television and sets available request other school personnel to do the recording for them.

Availability—Audio/Radio

Regardless of district size or wealth, the most common source of audio/radio programming was audiotape/cassette, even though more than one source was typically available. The four most common sources reported by teachers were:

Audiotape/cassette	93%
Records	68
Direct off-air over a public radio station	14
Direct off-air over a commercial radio station	13

Availability—Computers

Principals reported a total of 335,000 computer work stations in the schools, consisting of 297,000 microcomputers and 38,000 terminals. Schools averaged five microcomputers or terminals each, but equipment availability varied substantially by school level.

* Percentages of schools having either microcomputers, terminals or both are:

Senior high	99%
Middle/junior high	90
Elementary	70

Computers typically were permanently located in a given school. One fourth or fewer of the districts had a centralized computer center for instructional use, and one fifth or fewer rotated computers among schools.

Computers, when available in a building, usually were permanently located in a classroom or a computer center in junior and senior high schools. In elementary schools they were often rotated among classrooms or located in a media center or library. Eighty-five percent of the teachers with computers available were aware of one or more types of software available for their use.

* The following percentages of teachers identified availability of software by category:

Drill & Practice	73%
Games	64
Tutorial	50
Graphics	30
Word Processing	30
Computation or Statistics	27
Language for Programming	25
Test & Evaluation	19

A few similarities and differences are noted by school level.

* Drill and practice and games were reported by about 60 percent or more of the teachers at all three levels.

* Tutorial programs were available to about half of the teachers, regardless of school level.

* Software for word processing, computation and statistics, and testing and evaluation were more available to secondary than elementary teachers.

USE OF MEDIA BY TEACHERS AND STUDENTS

The numbers and percentages of teachers using media varied across media and school levels. Availability alone probably does not account for the differences, since teacher reports suggest a number of significant factors related to effective use.

* Across school levels and media, 50 to 80 percent of teachers having a medium available reported using it.

* Audio/radio outstrips both TV and computers in percentages of teachers using the medium.

* An estimated 18.5 million students received some of of their instruction from television in 1982-83. For 14.5 million, television was a "regular" source of instruction ("regular" is reported use of at least 75 percent of the programs in a series). No comparable figures are available for audio/radio and computer use.

A greater number of teachers and their students used TV than used computers, but TV was available to many more teachers:

	Teachers use where medium available:		
Medium	Elementary	Junior High	Senior High
Television	56%	51%	51%
Audio/Radio	79	74	67
Computers	71	55	48

Based on these percentages, an estimated number of teachers using each medium is:

Television	791,000
Audio/radio	1,412,000
Computers	582,000

Characteristics of Use Patterns—Television

Across school levels, teachers reported increased use of television over the last three years.

* One third or more teachers reported increased use with the largest increase (38 percent) among senior high teachers.
* Forty percent have maintained their use at previous levels.
* One fourth reported decreased use with the largest decrease (29 percent) among elementary teachers.

More than 40 percent of teachers with programming available used at least one series regularly (75 percent of all programs in the series). Breakdown of these regular users is:

Elementary	48%
Middle/Junior High	40
Senior High	28

About half of the elementary teachers favored use of full-semester or year-long series; slightly over a third preferred selected programs from a series, and the remaining 20 percent favored use of mini-series.

Teachers at the secondary level, however, clearly favored use of selected programs from series (60 to 70 percent) over either the use of full-semester or year-long series (eight percent) or use of mini-series (20 to 30 percent).

Programs from 580 series were reported used during 1982-83.

* The number of teachers making use of one or more programs from the top ten series ranged from an estimated 18,600 to 104,000.
* The number of students viewing one or more programs from these ten series ranged from an estimated 967,000 to 10,517,000, with some series used at the secondary level achieving the highest numbers because of multiple sections taught.

* Of the top 25 series used, all but one are public television offerings. Commercial television's after school special programs are the exceptions. It is interesting to note that most of the other series were designed specifically for in-school use.

* Students most often viewed programs as a total class activity. Some viewed individually or in small groups, mostly at the secondary levels.

The three curriculum areas for which television programming was most used are:

Science
Social Science
Language Arts and/or Reading

Characteristics of Use Patterns—Audio/Radio

Audio/radio use appears to have stabilized in the past three years for almost 60 percent of the users. Where change occurred:

* Elementary teachers most often reported increased use (30 percent).

* Senior high teachers showed the greatest decrease (20 percent).

Audio tapes and records were by far the most frequently used:

* Ninety-seven percent of teachers reported spending some time each week listening to audiotapes/cassettes and about 86 percent indicated use of records.

* Only 16 percent indicated direct off-air radio use.

Characteristics of Use Patterns—Computers

Computers had multiple instructional uses at all school levels.

* Computer literacy (e.g., instruction in computer concepts) was estimated by 68 percent of principals and almost half the teachers at all levels to be the most common use.

* Substantial percentages of teachers reported use of computers for enrichment at each school level:

Elementary	65%
Middle/junior high	57
Senior high	40

* Other important uses at the elementary and middle/junior high levels are challenge use for high achievers, remedial instruction for regular classroom students, and regular instruction in specific subject areas for all students.

* Other important uses at the senior high level are computer programming, computer applications (e.g., word processing or advanced problem solving), and regular instruction in specific subject areas.

Effective media use depends on the attitudes of school personnel regarding the medium.

* The overwhelming majority of principals agreed with statements depicting several computer needs:

  - o Teachers want more training in computers.
  - o Help is needed in planning for the changing role of teachers.
  - o Help is needed in software acquisition.
  - o Present computer-to-student ratio precludes significant instructional use of computers

* Large majorities of principals also disagreed with statements suggesting:

  - o They do not feel comfortable about working with computers.
  - o The emphasis on computers is detracting seriously from the overall educational goals of the schools.

Teachers strongly confirmed the principals' perceptions that teachers want more training, and a large majority agreed that computers can help them teach more effectively.

* Half the teachers disagreed with the statement that they feel uncomfortable working with computers, but almost one third acknowledged discomfort.

* Teachers were noncommittal on the instructional quality of software available to them. Ninety percent, however, agreed that software should be previewed by teachers prior to purchase.

SUPPORT FOR INSTRUCTIONAL MEDIA

Some aspects of support for instructional media are (a) financial, (b) personnel, (c) staff development.

Support—Financial

Financial support for media differs greatly according to district size and wealth. In 1982-83 some superintendents were able to break out media budget categories and reported the following distribution of funds:

Computers	45%
Other media	33
Television	15
Audio/Radio	7

According to superintendents, the sources of these funds varied by medium.

* Over half the financial support for television (53 percent), audio/radio (65 percent), and other media (59 percent) came from district-wide budgets.

* Computers are supported by both district-wide budgets (36 percent) and by federal programs (44 percent).

* School building budgets, state programs, and other monies contribute the remaining percentages to media funding.

Plans for future expenditures in television were strongest in two areas: 1) 42 percent of all districts plan to expand their videotape libraries during the next three years, and 2) 41 percent of all districts plan to acquire additional videocassette recorders.

Support—Personnel

Support personnel may be provided to assist with mediated instruction:

* About two-thirds of the districts with both television and computers available had district-level coordinators for computers. Half had television coordinators.

* At the building level, 55 percent of the principals having television available reported also having a building coordinator. Virtually all television coordinators (99 percent) have other responsibilities, 67 percent in the library. Only 17 percent coordinated computers as well as television.

* In buildings where computers are available 77 percent of the principals reported having a computer coordinator. Ninety-eight percent of the coordinators had other responsibilities, 59 percent in teaching.

* Elementary building coordinators are more likely to deal with both media than are secondary coordinators.

Support—Staff Development

In 1982-83, over 90 percent of the nation's school districts offered teacher in-service training in some media.

* District-level in-service sessions were most prevalent in the use of computers. The following percentages indicate districts with training offered in the available media:

Computers	84%
Television	50
Other media	39
Audio/radio	27

* At the district level training is typically available from more than one source. Across all media, districts used training sources, in the following rank order:

School district personnel
State department personnel
Public TV station, network personnel
School building personnel

* For computer training, 35 to 40 percent of principals reported having a resource support group of teachers to provide assistance to other teachers.

SOME COMPARISONS WITH SUS-1977

As noted earlier, the 1976-77 School Utilization Study focused only on instructional use of television. Therefore, comparisons about changes from 1977 to 1983 can be made only for that medium. Significant trends are noted in two areas - availability and use.

AVAILABILITY

* Television for instruction is available to approximately 71% of all teachers in the U.S. This is virtually unchanged from 1977.

* While the ratio of teachers per television set has remained virtually unchanged, the number of teachers who have access to color sets has increased from 54 percent to 75 percent. Nevertheless, at the elementary level, 29 percent of teachers still have access only to black and white television sets.

* The videocassette recorder has assumed an increasingly important role in the schools. Three fourths of all schools had one or more recorders available for use in 1983 compared to one third in 1977.

USE

* 791,000 teachers, or about 37 percent of all teachers nationally, used television for instruction in 1982-83. This slight drop from 1976-77 is not statistically significant.

* Where teachers report in SUS-83 that television is available to them, the percentage of teachers using rises to 54 percent. A decrease from 1977 in the number of elementary school teachers using television for instruction was partially offset by slight increases in the number of junior and senior high school teachers. Nonetheless, use of television continued to be proportionately higher among elementary school teachers.

* Overall, the percentage of teachers who used television regularly did not change significantly between 1977 and 1983, with roughly 30 percent of all teachers indicating regular use at both time points. At the elementary level, however, the percentage of teachers who used television regularly declined significantly (from 42 percent in 1977 to 33 percent in 1983). Regular use, however, continued to be proportionately higher among elementary school teachers than among secondary school teachers.

* The SUS-83 survey reconfirmed the SUS-77 results that teachers who use television for instruction generally integrate program viewing into the overall curriculum and instructional process. The amount of class time devoted by teachers to preparatory and follow-up activities around program viewing increased significantly since 1977.

In summary, the status of television for instruction has remained relatively stable from 1976-77 to 1982-83. The percentage of teachers having programming available remains the same. In both 1977 and 1983 about 30 percent of the classrooms did not have programming available.

Use patterns show changes depending on grade level. Fewer elementary teachers are using television, but more junior and senior high teachers are using it, probably due to the increase in videocassette recorders. Whether computer use is replacing time formerly spent with television at the elementary level is speculative and requires follow-up study.

Finally, however, teachers using television are using it more often and spending more time integrating the television lessons into classroom activities.